

THE LEVEL AND RISK OF OUT-OF-POCKET HEALTH CARE SPENDING

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Because of the general increase in health care costs, out-of-pocket spending for health care is becoming increasingly important from the point of view of public policy and of scientific studies of economic behavior. For example, economic preparation for retirement is of substantial policy concern, yet there is considerable controversy about the level of preparation. Part of the difference in opinion concerns the estimation of current out-of-pocket spending on health care costs and projections for future costs. Further, if the budgetary problems of Medicare require increases in out-of-pocket spending by the elderly, we would like to know what the current situation actually is.

The main goal of this paper is to assess the level and distribution of out-of-pocket spending on health care in the Health and Retirement Study (HRS) and to compare these measures with similar measures from the Medical Expenditure Panel Survey (MEPS) and the Medicare Current Beneficiary Survey (MCBS). We focus on the HRS because it is the preeminent data set for studies about the economic status of the older population and for the estimation of models of retirement and saving behavior. Such studies require good data on economic resources, which is an important feature of the HRS. Although the HRS queries about all categories of out-of-pocket spending on health care services, it expends considerably fewer resources on the measurement of out-of-pocket spending than either the MEPS or the MCBS, raising the possibility that its measure has greater variance and possible bias compared with them.

The MEPS is a rotating two-year household panel survey of community-dwelling persons. The MCBS is a rotating four-year panel survey of persons enrolled in Medicare Parts A or B, or both, who may reside in the community or in long-term care facilities. Both MEPS and MCBS have a focus on health including health care expenditures and health insurance, and they both spend extra effort relative to HRS to obtain data on these elements. But the surveys have drawbacks. The MEPS does not include nursing home residents, and so has incomplete data on an important component of out-of-pocket spending and its sample of the older population is small relative to the HRS. The main drawback of the MCBS is that its coverage of the population under age 65 is limited to disabled enrollees.

RESULTS

To assess error in the measurement of the risk of large out-of-pocket spending in the HRS, we calculated the out-of-pocket spending of the top 1 percent of spenders and compared it with economic resources. Reported spending by this group was \$115,000. The pretax income of this group was about \$39,000 per year. Thus, as far as income is concerned, this group had a two-year inflow of \$78,000, but this sum would be reduced by taxes. In

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addition, between the HRS waves that bounded the spending years, wealth declined by about \$20,000. A rough estimate of total spending on all spending items (not just prescription drugs) would be about \$98,000 (the sum of two years' income plus wealth change), which is less than total spending on prescription drugs. When we consider even greater values in the spending distribution such as the top 10 spenders, the disparity between measured spending and economic resources is even greater. From these comparisons, we conclude that out-of-pocket spending is overstated at the top of the distribution.

A possible reason for observation error is imputation for item nonresponse. The HRS asks about the use of health care services in a number of categories such as outpatient doctor visits. If a respondent affirms service use, she is asked about out-of-pocket spending. Most respondents with service use report a value but some respond with a "don't know" or "refuse." Follow-up bracketing questions place the spending in a range such as \$2,500–\$3,000, and in the processing of the data for public release, values of such components of total spending are imputed. However, among households in the top 1 percent of the distribution, out-of-pocket spending is higher among those with no imputations than among households with some imputations. We conclude that imputation may contribute to the large outliers in spending, but it is not primarily responsible for them.

Out-of-pocket spending on prescription drugs is difficult to measure in a household survey because of the heterogeneity in purchasing patterns. To find how the measurement of spending on drugs affects the distribution of spending, we compare total out-of-pocket spending by individuals with out-of-pocket spending excluding spending on prescription drugs. There are large differences in measured spending according to whether drugs are included. For example, the overall mean is more than twice as large when drug spending is included, and the median is even greater as a proportion. The differences persist throughout the distribution, although in the highest age bands the difference is diminished.

Our comparisons between HRS, MEPS and MCBS show that mean spending as measured in HRS is considerably higher than in the other two surveys: over the age range 65 or older the HRS mean is about 50 percent greater. The difference primarily arises from large differences at the top of the spending distribution, at the 90th percentile or greater. For example, at the 99th percentile spending in HRS is greater by about 250 percent than at the 99th percentile in MEPS. The implication is that the level and risk of out-of-pocket spending on health care are exaggerated in HRS. Observation error in the HRS measurement relative to MEPS and MCBS is to be expected because HRS is a general purpose survey with two-year periodicity, and so it cannot expend the resources on the measurement of spending that MCBS and MEPS are able to do. But this does not explain the apparent bias.

We conclude that when using data from the HRS waves of 2004 or earlier, it would be advisable for researchers to examine health care spending on a case-by-case basis looking for patterns in the panel data that would indicate large observation error. An alternative is to use simple Bayesian methods to shrink reported spending to a prior benchmark. The benchmark would be spending in MEPS and the amount of shrinkage would be related to the variance of spending in HRS relative to MEPS.

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